

REMARKS

Claim 1 has been amended. Claims 1-7 are pending in the application. Applicants reserve the right to pursue the original claims and other claims in this and other applications.

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,241,472 (“Bosch”) in view of U.S. Patent No. 4,209,259 (“Rains”). This rejection is respectfully traversed.

Claim 1 recites that “the processing unit (12) comprises a stationary inner part (14) and, rotatable about this, an outer part (15), the inner and outer parts having the shape of substantially concentric rings (16, 17) arranged with a close fit to each other and having a plurality of through shearing recesses (18) opposing each other, wherein the outer part (15) is the furthest part from an axis of rotation of the outer part (15) in a direction tangential to the axis of rotation.” The cited references, alone or in combination, fail to teach or suggest this limitation. With reference to FIG. 3, Bosch states that “[t]he rotor 38 and the stator 40 are dimensioned so that the rotor 38 fits inside the stator 40 with the rotor teeth 42 and the stator teeth 44 interleaved.” (Bosch, column 1, lines 40-41; FIG. 3, emphasis added). As shown in FIG. 3, reproduced below with added labels A-E, when the Bosch rotor 38 and stator 40 are interleaved, rotor teeth 42 labeled “A” will be interleaved between the stator teeth labeled “C” and “D”, and the rotor teeth 42 labeled “B” will be interleaved between the stator teeth labeled “D” and “E”.

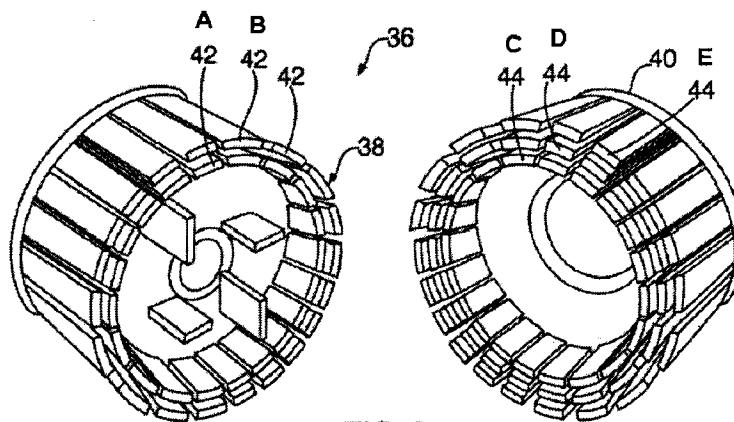


FIG. 3
(PRIOR ART)

In the Bosch mixer, the part that is the furthest part from an axis of rotation of the rotor 38 in a direction tangential to the axis of rotation is the stator teeth 44 labeled "E". Therefore, Bosch does not teach all the limitations of claim 1 because the stator teeth 44 labeled "E" are stationary and are not an outer part (15) that is rotatable about a stationary inner part (14).

Rains does not cure the deficiencies of Bosch because Rains only discusses a magnetically responsive agitator means disposed inside a vessel and does not teach or suggest a stationary inner part and an outer part rotatable about the inner part. (Rains, Abstract).

Since the Bosch and Rains combination does not teach or suggest all of the limitations of claim 1, claim 1 is not obvious over the cited references. Claims 2-7 depend from claim 1 and are patentable at least for the reasons mentioned above.

Furthermore, as discussed in the Amendment filed July 28, 2009, it would not be obvious to combine the rotor/stator assembly of Bosch with the magnetically driven fluid agitating impeller of Rains. In one case, the present invention provides a device that may cut or shear materials into smaller particles, and disperse them in a more or less liquid bulk. (Present specification, paragraph [0020]). In another case, devices of the present invention can mix materials with each other. *Id.* Hence, the assembly of the present invention is adapted for both shearing/cutting material and mixing and dispersing material. This is achieved, in one case, by a device as recited in claim 1, in which a rotor is provided to be rotatable outside and around a stator. Both the rotor and stator are provided with through shearing recesses. The particles to be cut are supplied to the area of the common centre axis of the rotor and the stator and are thereafter moved out from the assembly through the shearing recesses. The device also creates a movement (e.g., rotation) of material in the vessel, which assists in mixing the products due to the fact that the rotor is provided outside the stator.

Bosch discloses mixers and emulsifiers to be used in industrial applications, e.g., for blending various materials. A rotor is rotated relative to a stator in order to axially draw material from the rotor-stator assembly and thereafter disperse the material radially outward from the

rotor/stator assembly. Bosch is silent about the means that are used to cause the rotor to rotate and it does not show any of the rotor/stator assemblies provided in a process vessel. Furthermore, the rotor/stator assembly of FIG. 3 includes a rotor provided inside the stator. By this it may be possible to rotate the rotor and use it to disperse and mix material that enters into the assembly. However, since the rotor is provided inside the stator it does not, as compared to the present invention, provide the effect of contributing to rotating the products in the process vessel around the processing unit.

Rains discloses a magnetically driven fluid agitating impeller. Rains does not disclose any means for cutting/shearing product clusters and/or materials into smaller particles and dispersing them in a more or less liquid bulk. Instead, Rains discloses that the magnetic drive is particularly suitable for transmission of 3 - 4 horsepower of power to the impellers (Rains, column 6, lines 25-31). In column 1, lines 60-65, Rains discloses that "...power levels of from 1-5 horsepower are required, depending upon the foregoing variables for stirring, mixing, blending and suspension agitation. Even higher power levels, up to 10 horsepower, may be required for homogenizing and dispersing operations." Hence, Rains teaches that the magnetic drive is not suitable for cutting/shearing product clusters and/or materials into smaller particles and dispersing them in a more or less liquid bulk. Therefore, it would not be obvious to one of ordinary skill in the art to combine Bosch with Rains in order to reach the present invention.

In view of the above, Applicants believe the pending application is in condition for allowance. Applicants respectfully request that the rejection be withdrawn and the claims allowed.

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